

AUTOMATIC FRAME IDENTIFICATION, DOOR STATUS, AND FRAME COUNT

DETECTION SYSTEM

ABSTRACT

A system and method to automatically provide frame count, frame identification and

5 status information to each frame within a modular, multi-frame tape library system. In the
exemplary embodiment, signals are generated by each frame that have a delay value specific to
each frame, which are accumulated and supplied to each frame to determine the total number of
frames within the tape library system. A reference pulse is generated by each frame and
compared to the delay signal generated by each frame to determine its own identification among
the plurality of individual frames. Similarly, a status signal is generated by each frame and
supplied to each frame which is indicative, for example, of a door open or other anomaly that can
be monitored by all the frames within the tape library system. In the exemplary embodiment,
each frame is adapted with a pulse generator and delay signal generator as well as a status
register, and each frame is coupled together along a multi-channel bus for carrying the signals
generated by each frame.

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